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CLAIMS

1. (Currently amended) A method ~~for enhancing the generation of hydroxyl radicals (OH*), at ambient temperature, in a liquid aqueous biocidal mixtures containing hydrogen peroxide (H₂O₂), wherein the hydrogen peroxide has an initial concentration of from 2 to 250 ppm, said method comprising the following steps~~
 - i) supplying injecting oxygen (O₂) or air to a liquid aqueous biocidal said mixture containing hydrogen peroxide (H₂O₂) at an initial concentration of from 2 to 250 ppm;
 - ii) supplying suspended magnesium oxide to the hydrogen peroxide containing said mixture at a magnesium oxide concentration within said mixture of from 2 ppm to 250 ppm;
 - iii) adjusting the pH of the said mixture of (ii) to a value of from 7.2 to 9.7;
and
 - iv) irradiating the said mixture containing hydrogen peroxide and magnesium oxide with UV light having a wavelength of from 190 to 390 nm;
and
 - v) ~~mixing said mixture.~~
wherein the method is performed at ambient temperature and an enhanced generation of hydroxyl radicals (OH*) is provided.
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Currently amended) The method of claim 1, wherein the oxygen is supplied to the liquid aqueous biocidal mixture to saturation.
6. (Canceled)

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7. (Canceled)
8. (Currently amended) The method of claim 1, wherein the said initial concentration of hydrogen peroxide in the liquid aqueous biocidal mixture is from 10 ppm to 50 ppm, and the said concentration of magnesium oxide in the mixture is from 10 to 50 ppm.
9. (Canceled)
10. (Canceled)
11. (Currently amended) The method of claim 1, wherein the mixture is mixed after supplying the magnesium oxide, the mixing is said mixing is carried out for a period of time sufficient to generate a the desired amount of hydroxyl radicals.
12. (Currently amended) The method of claim 11, wherein the said desired amount of hydroxyl radicals is sufficient to achieve a an amount suffieient to reach a required biocidal effect in the mixture.
13. (Currently amended) The method of claim 11, wherein said period of time is lasts from 3 seconds to 5 hours.
14. (Currently amended) The method of claim 13, wherein said period of time is lasts from 30 second to 100 minutes.
15. (Currently amended) The method of claim 11, wherein said period of time is lasts more than 5 hours.
16. (Currently amended) The method of claim 11, wherein the said desired amount of hydroxyl radicals generated in the mixture is a predetermined quantity.

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17. (Canceled)

18. (Canceled)

19. (Currently amended) The method of claim 11, comprising quantification of the amount of hydroxyl radicals, the quantification wherein the generated radicals are quantified by a chemical method comprising reacting the hydroxyl radicals, if present in the mixture, with salicylic acid.

20. (Currently amended) The method of claim 1, wherein the liquid aqueous biocidal mixture is water selected from the group consisting of sea water and municipal effluent water comprising adding hydrogen peroxide to sea water, which sea water is intended to serve as ballast water.